

**CLAIM AMENDMENTS**

(added text shown with underlining; deleted text shown by ~~strikethrough~~)

1. **(CURRENTLY AMENDED)** A process Process for the depolymerization of glycosaminoglycanes ~~characterized by the use of comprising: exposing said glycosaminoglycanes to electron-beam radiation..~~
2. **(CURRENTLY AMENDED)** The process Process according to claim 1, ~~in which said exposing step is performed by~~ using a dynamic irradiation process.
3. **(CURRENTLY AMENDED)** The process Process according to claims 1-2 ~~claim 1~~, wherein the glycosaminoglycane is heparin.
4. **(CURRENTLY AMENDED)** The process Process according to claims 1-3 ~~claim 1~~, wherein the electron-beam radiation has an energy comprised between 100 and 1000 keV.
5. **(CURRENTLY AMENDED)** The process Process according to claims 1-4 ~~claim 1~~, wherein the process is performed on glycosaminoglycanes in aqueous solution.
6. **(CURRENTLY AMENDED)** The process Process for the depolymerization of glycosaminoglycanes according to claim 5, performed in the presence of an organic compound represented by formulas I, II and III:



wherein each R is independently selected from the group consisting of H, OH, CHO, C<sub>1</sub>-C<sub>6</sub> alkyl and acyl, optionally substituted by oxygen atoms; two R groups optionally join together to form a ring.

7. **(CURRENTLY AMENDED)** The process ~~Process~~ according to claim 6, wherein the organic compound is selected from the group consisting of methanol, ethanol, n-propanol, isopropanol, n-butanol, isobutanol, glycerol, tetrahydrofurane, dioxane, diethylether, tertbutylmethylether, dioxolane, formaldehyde, glyoxal, acetaldehyde, N,N-dimethyl formamide, N,N-dimethylacetamide, N,N-diethylformamide, and N-methylpyrrolidone.
8. **(CURRENTLY AMENDED)** The process ~~Process~~ according to claims 6-7 claim 6, wherein the amount of organic compound varies between 0.1 and 5%.
9. **(CURRENTLY AMENDED)** The process ~~Process~~ according to claims 6-7 claim 1, wherein the amount of radiation used is comprised between 400 and 8,000 kGy.
10. **(CURRENTLY AMENDED)** Glycosaminoglycans obtainable obtained by the process of any one of claims 1-9.